

What is claimed is:

1. In a packet radio communication system having a network part formed of a first network portion and at least a second network portion and a mobile node selectively operable to communicate data by way of the first network portion when positioned within a first coverage area associated with the first network portion and to communicate data by way of the at least the second network portion when positioned within at least a second coverage area associated with the at least the second network portion, an improvement of apparatus for facilitating routing of the data originated by the mobile node, when the mobile node is positioned in any of the first and at least second coverage areas, for delivery to a data destination, said apparatus comprising:

10 a clone-list depository embodied at the mobile node, said clone-list depository for storing a clone list provided to the mobile node, the clone list stored at the mobile node listing routing information by which to route data originated by the mobile node when positioned at least at any location within a selected one of the first and at least second coverage areas, the clone list provided to the mobile node dependent, in part, upon in which of the first and at least 15 second coverage areas that the mobile node is positioned; and

an accessor for accessing at least selected entries of the routing information of the clone list stored at said clone-list depository, the selected entries accessed by said accessor used to route the data originated by the mobile node.

20 2. The apparatus of claim 1 wherein the first network part is operated by a first network operator and the second network part is operated by a second network operator, wherein the at least the second network portion comprises the second network portion and at least a third network portion, the third network portion operated by a third network operator and the third network defining a third coverage area, wherein the first and third network operators, 25 respectively, have an affiliation therebetween, and wherein the clone list provided to the mobile node when the mobile node is positioned in the first coverage area lists routing information to route the data when the mobile node is positioned in any of the first and at least third coverage areas.

3. The apparatus of claim 2 wherein a first clone list is associated with the first network portion, wherein a second clone list is associated with the second network portion, and wherein at least a third clone list is associated with the at least the third network portion and wherein a selected one of the first, second, and at least third clone lists, respectively, is stored at 5 said clone-list depository.

4. The apparatus of claim 1 wherein the mobile node is selectively operable to generate and send a registration request to request registration of the mobile node with the network part of the communication system, and wherein the clone list is provided to the mobile 10 node, and stored at said clone-list depository responsive to receipt of the registration request at the network part.

5. The apparatus of claim 4 wherein the network part comprises a registration entity to which the registration request generated and sent by the mobile node is routed, wherein said 15 apparatus further comprises at least a first registration-entity list, the clone list provided to said clone-list depository a copy of a selected one of said at least the first registration-entity list stored at the registration entity.

6. The apparatus of claim 5 wherein said at least the first registration-entity list 20 comprises said first registration entity list and at least a second registration entity list, said first registration entity list associated with the first network portion and the second registration entity list associated with the second network portion.

7. The apparatus of claim 6 wherein the registration request that the mobile node 25 selectively generates includes a first identifier that identifies in which of the first and at least second coverage areas that the mobile node is positioned and wherein selection of which copy of the first registration entity list and the at least the second registration entity list forms the selected one that is provided to said clone-list depository is responsive, in part, to values of the first identifier that identifies in which of the first and at least second coverage areas that the mobile 30 node is positioned.

8. The apparatus of claim 7 wherein a selected one of the first and at least second network portions forms a home network associated with the mobile node, wherein the registration request selectively generated by the mobile node further includes a second identifier that identifies the home network associated with the mobile node, and wherein selection of 5 which copy of the first registration entity list and the at least the second registration entity list forms the selected one that is provided to said clone-list depository is further responsive, in part, to the second identifier.

9. The apparatus of claim 4 wherein the registration request selectively generated by 10 the mobile node is generated upon powering-up of the mobile node and wherein the clone list provided to the mobile node is responsive to where the mobile node is positioned upon powering-up of the mobile node.

10. The apparatus of claim 4 wherein the mobile node further at least receives 15 indications of in which of the at least the first and second coverage areas that the mobile node is positioned, said accesso further comprises a comparator adapted to access the clone-list stored at said clone-list depository and the indications of in which of the first and at least second coverage areas that the mobile node is positioned and wherein comparisons made by said comparator indicate that the clone list fails to provide routing information for the coverage area of the first 20 and at least second-coverage area in which the mobile node is positoned.

11. The apparatus of claim 1 wherein said apparatus further comprises a data formatter for formatting data to be communicated by the mobile node to include values of a selected entry of the routing information of the clone list stored at said clone-list depository.

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12. The apparatus of claim 1 wherein each of the first and at least second network portions defines at least one network provider code and wherein the routing information listed at the clone-list stored at said clone list depository is indexed with respect to network provider codes.

13. The apparatus of claim 12 wherein the first network portion is identified, at least in part, by a mobile network code and wherein the network provider code associated therewith includes the mobile network code.

5 14. The apparatus of claim 12 wherein the first network portion is identified, at least in part, by at least one system identification and wherein the network provider code associated therewith includes the system identification code.

10 15. In a method of communicating in a packet radio communication system having a network part formed of a first network portion and at least a second network portion and a mobile node selectively operable to communicate data by way of the first network portion when positioned within a first coverage area associated with the first network portion and to communicate data by way of the at least the second network portion when positioned within at least a second coverage area associated with the at least the second network portion, an improvement of a method for routing of the data originated by the mobile node, when the mobile node is positioned in any of the first and at least second coverage areas, for delivery to a data destination, said method comprising the operations of:

20 storing a clone list provided to the mobile node at the mobile node, the clone list stored at the mobile node listing routing information by which to route data originated by the mobile node when positioned at least at any location within a selected one of the first and at least second coverage areas, the clone list provided to the mobile node dependent, in part, upon in which of the first and at least second coverage areas that the mobile node is positioned; and

25 accessing at least selected entries of the routing information of the clone list stored during said operation of cloning, the selected entries that are accessed used to route the data originated by the mobile node.

16. The method of claim 15 further comprising the operations, prior to said operation of storing, of:

30 requesting, at the mobile node, the clone list; and providing the clone list, responsive to request made during said operation of requesting, to the mobile node.

17. The method of claim 16 wherein said operation of requesting comprises:
generating a registration request, and sending the registration request to the
network part; and

5 wherein said operation of providing comprises sending the clone list from the
network part to the mobile node.

18. The method of claim 17 wherein the network part comprises a registration entity,
wherein the registration request, generated and sent during said operations of generating and
10 sending, is routed to the registration entity, and wherein the clone list provided during said
operation of providing is provided by the registration entity.

19. The method of claim 18 wherein a selected one of the first and at least second
network portions forms a home network associated with the mobile node and wherein the clone
15 list provided during said operation of providing is further dependent upon which of the first and
at least second network portions forms the home network.

20. The method of claim 15 wherein network provider codes are defined in the packet
radio communication system, different ones of the first and at least second network parts
20 assigned different ones of the network provider codes and wherein the routing information of the
clone list stored during said operation of storing is defined in terms of the network provider
codes.